CENTER FOR BEAM PHYSICS-
HEAVY-ION FUSION
JOINT SEMINAR

"Relativistic Laser Plasma Interaction and Particle Acceleration"

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Thursday, March 27, 2003, 10:30 AM
Albert Ghiorso Conference Room (71-264), LBNL
•••*Refreshments served at 10:20 AM* •••

Abstract: Recent experimental and theoretical results obtained at MPQ on laser-plasma interaction at relativistic intensities will be presented. Electron beams accelerated in self-focussed plasma channels and ion beams generated at thin foil targets will be compared with 3D-PIC simulations. Laser wakefield acceleration will be described in a regime far above wave breaking. Superradiant amplification of few-cycle pulses proposed by Shvets et. al. will be discussed, including first experimental results at MPQ.

Biographical data and research interests: After obtaining his Ph.D. in nuclear physics at the Technical University-Munich in 1969, Dr. Meyer-ter-Vehn was a post-doc at LBL (nuclear chemistry, 1973-75). He then held positions at the Swiss Institute of Nuclear Research (1975-77) and the Nuclear Research Center-Juelich (1977-79). He has been at the Max-Planck Institute since 1979, where he is currently in the Laser Plasma Division. His interests include beam-plasma and inertial fusion physics, heavy-ion fusion and fast ignition, particle acceleration with ultra-short laser pulses, and hot dense matter physics with XFEL beams.